

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/035,737	RIJAVEC, NENAD	
	Examiner	Art Unit	
	Yixing Qin	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 07 November 2001.

2.  The allowed claim(s) is/are 1,2,4-14,16-26 and 28-36.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- 1.  Notice of References Cited (PTO-892)
- 2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
- 4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- 5.  Notice of Informal Patent Application (PTO-152)
- 6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
- 7.  Examiner's Amendment/Comment
- 8.  Examiner's Statement of Reasons for Allowance
- 9.  Other \_\_\_\_\_.



EDWARD COLES  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER

## DETAILED ACTION

### ***Allowable Subject Matter***

Claims 1, 2, 4-14, 16-26 and 28-36 are allowed.

The following is an examiner's statement of reasons for allowance: The independent claims in their amended form (see below) now recite the limitation that relates to the characterizing of an image data group based upon the aggregation of valid and mask data values, as previously recited in the now canceled claims 3, 15 and 27.

Prior art techniques, such as the one disclosed in Fig. 3A-3E and column 9, lines 18-67 and column 10, lines 1-36 of Chan et al (U.S. Patent No. 5,930,387) discloses a technique for image analysis by using mask bits to map a pixel of a image block to a particular color. Murashita et al (U.S. Patent No. 6,304,606) discloses in Fig. 10 and column 17, lines 49-67 and column 18, lines 1-54 a method for storing 0's and 1's as a means of indicating whether a block is valid or invalid. Also note in Fig. 7 of Murashita et al how the valid and invalid information is used in the decoding of information. These two references in combination would suggest to one of ordinary skill to use a combination of mask and valid data values when compressing image data, but neither teaches how the aggregation of these values to a true/false result would lead a machine to know whether a block was a continuous tone or linework image data as now recited in the independent claims. Other prior art found to be pertinent by the Examiner include Kannapell et al (U.S. Patent No. 4,577,235), Katayama et al (U.S. Patent No. 5,588,069), Lightenberg et al (U.S. Patent No. 5,682,441), Kanno et al (U.S. Patent No.

5,687,252) and Lightenberg et al (U.S. Patent No. 6,137,914) all disclose various image compression techniques through dividing images into block/tiles and encoding additional information (such as if a block is of a certain color, if it is text or an image, etc.) along with those blocks. Again, however, no prior art of record discloses the limitation that relates to the characterizing of an image data group (i.e. the blocks or tiles) based upon the aggregation of valid and mask data values, as previously recited in the now canceled claims 3, 15 and 27.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Job Gibbons (Reg. No. 37333) on 9/26/05.

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Claims 3, 15 and 27 are to be **canceled** and claims 1, 13 and 25 are to be amended as follows :

**1. Claim 1**

The **first** limitation of claim 1 should recite :

- identifying a plurality of image tiles within a composite image data set, wherein a mask data value indicating whether the pixel contains one of continuous tone image data or linework image data and a valid data value indicating whether the pixel contains any data at all are associated...

The **second** limitation of claim 1 should recite:

- characterizing an image data group within at least one image tile within the plurality of image tiles as one of linework image data if an aggregation of valid data values associated with pixels within the image data group is equal to true and an aggregation of mask data values associated with pixels within the image data group is equal to false or continuous tone image data; and

**2. Claim 13**

The **first** limitation of claim 13 should recite :

- an image tile identifier for identifying a plurality of image tiles within a composite image data set, wherein a mask data value indicating whether the pixel contains one of continuous tone image data or linework image data and a valid data value indicating whether the pixel contains any data at all are associated...

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The **third** limitation of claim 13 should recite:

- a tile data characterizer for characterizing an image data group within at least one image tile within the plurality of image tiles as one of linework image data if an aggregation of valid data values associated with pixels within the image data group is equal to true and an aggregation of mask data values associated with pixels within the image data group is equal to false or continuous tone image data; and

### 3. Claim 25

The **first** limitation of claim 25 should recite :

- identifying a plurality of image tiles within a composite image data set, wherein a mask data value indicating whether the pixel contains one of continuous tone image data or linework image data and a valid data value indicating whether the pixel contains any data at all are associated...

The **second** limitation of claim 25 should recite:

- characterizing an image data group within at least one image tile within the plurality of image tiles as one of linework image data if an aggregation of valid data values associated with pixels within the image data group is equal to true and an aggregation of mask data values associated with pixels within the image data group is equal to false or continuous tone image data; and

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YQ

  
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